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10/642,704

08/18/2003

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EXAMINER

DUONG, FRANK

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

10/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/642,704

Applicant(s)

HWANG ET AL.

Examiner

Frank Duong

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10, 11 and 18 is/are rejected.
- 7) ☒ Claim(s) 4-9, 12-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. This Office Action is a response to communications dated 07/30/07. Claims 1-18 are pending in the application.

Priority

2. Translation of foreign priority paper submitted on 07/30/07 has been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 10-11 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Willars et al (USP 6,889,050) (hereinafter "Willars").

Regarding **claim 1**, in accordance with Willars reference entirety, Willars discloses a method for providing a packet service data from a serving GPRS (General Packet Radio Service) support node (SGSN) to a user equipment (30) when the UE moves to a second cell managed by a second radio network controller (RNC) (DRNC), the UE requesting permission to receive the packet service in a first cell managed by a

first RNC (SRNC), in a mobile communication system providing a packet service (Figs. 1-9), the method comprising the steps of:

transmitting by the first RNC (SRNC) control information (*resource request in Fig. 3 or radio link (RL) setup in Fig. 6*) necessary for providing the packet service to the UE (30), to the second RNC (DRNC) (*col. 7, lines 50-51 or col. 9, lines 30-31*);

receiving by the second RNC (DRNC) the control information (*resource request in Fig. 3 or radio link (RL) setup in Fig. 6*) and receiving the packet service data (*col. 7, lines 51-56 or col. 9, lines 31-35*); and

transmitting by the second RNC (DRNC) the packet service data to the UE (30) (*col. 7, line 63 to col. 8, line 4 or col. 9, lines 36-49*).

Regarding **claim 2**, in addition to features recited in base claim 1 (see rationales discussed above), Willars also discloses transmitting by the second RNC (DRNC) the packet service data (MBMS) to the UE through a radio bearer (RB) after setting up the RB according to the received control information (*col. 7, line 63 to col. 8, line 4 or col. 9, lines 36-49*).

Regarding **claim 3**, in accordance with Willars reference entirety, Willars discloses a method for providing a packet service to a user equipment (UE) when the UE moves to a second cell managed by a second radio network controller (RNC) (DRNC), the UE requesting permission to receive the packet service in a first cell managed by a first RNC (SRNC), in a mobile communication system (Figs. 1-9) providing the packet service, the method comprising the steps of:

transmitting by the first RNC (SRNC) control information (*resource request in Fig. 3 or radio link (RL) setup in Fig. 6*) necessary for providing the packet service to the UE, to the second RNC (DRNC) (*col. 7, lines 50-51 or col. 9, lines 30-31*);

analyzing by the second RNC (DRNC) the control information and notifying the first RNC (SRNC) that the second RNC (DRNC) is providing the packet service, when the second RNC (DRNC) can provide the packet service (*col. 7, lines 51-56 or col. 9, lines 31-35*); and

transmitting by the second RNC packet service data to the UE (*col. 7, line 63 to col. 8, line 4 or col. 9, lines 36-49*).

Regarding **claim 10**, in accordance with Willars reference entirety, Willars shows a apparatus (Fig. 1 or Fig. 3) for providing a packet service to a user equipment (UE) when the UE moves to a second cell (Fig. 3; BS4), the UE requesting permission to receive the packet service in a first cell, in a mobile communication system providing the packet service (Figs. 1-6), the apparatus comprising:

a first RNC (SRNC), which manages the first cell (Fig. 3; BS1 or BS2), for transmitting control information (*resource request in Fig. 3 or radio link (RL) setup in Fig. 6*) necessary for providing the packet service to the UE requesting the packet service (*col. 7, lines 50-51 or col. 9, lines 30-31*); and

a second RNC (DRNC), which manages the second cell, for receiving the control information (*resource request in Fig. 3 or radio link (RL) setup in Fig. 6*) from the first RNC (SRNC), analyzing the control information, notifying the first RNC that the second RNC is providing the packet service when the second RNC can provide the packet

service (*col. 7, lines 51-56 or col. 9, lines 31-35*), and transmitting packet service data to the UE (*col. 7, line 63 to col. 8, line 4 or col. 9, lines 36-49*).

Regarding **claim 11**, in accordance with Willars reference entirety, Willars discloses a method (Figs. 1-6) for providing a packet service to a user equipment (UE) when the UE moves to a second cell (BS3 or BS4) managed by a second radio network controller (RNC) (DRNC) (see Fig. 3), the UE requesting permission to receive the packet service in a first cell managed by a first RNC (SRNC), in a mobile communication system providing the packet service, the method comprising the steps of:

transmitting by the first RNC (SRNC) a UE identifier of the UE, a service identifier indicating the packet service, and information on a radio resource currently set up to the UE, to the second RNC (DRNC) (*col. 7, lines 50-51 or col. 9, lines 30-31*);

receiving by the second RNC (DRNC) the UE identifier, the service identifier, and the radio resource information, and notifying the first RNC (SRNC) that the second RNC is providing the packet service when the second RNC (DRNC) can provide a packet service indicated by the packet service identifier (*col. 7, lines 51-56 or col. 9, lines 31-35*), and transmitting by the second RNC packet service data to the UE (*col. 7, line 63 to col. 8, line 4 or col. 9, lines 36-49*).

Regarding **claim 18**, in accordance with Willars reference entirety, Willars shows an apparatus (Figs. 1-6) for providing a packet service to a user equipment (UE) when the UE moves to a second cell, the UE requesting permission to receive the packet

service in a first cell, in a mobile communication system providing the packet service, the apparatus comprising:

a first RNC (SRNC), which manages the first cell, for transmitting a UE identifier of the UE, a service identifier indicating the requested packet service, and information on a radio resource currently set up by the UE (*col. 7, lines 50-51 or col. 9, lines 30-31*); and a second RNC (DRNC) for receiving the UE identifier, the service identifier and the radio resource information, notifying the first RNC that the second RNC is providing the packet service when the second RNC can provide the packet service (*col. 7, lines 51-56 or col. 9, lines 31-35*), and transmitting packet service data to the UE (*col. 7, line 63 to col. 8, line 4 or col. 9, lines 36-49*).

Allowable Subject Matter

4. Claims 4-9 and 12-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record, considered individually or in combination, fails to fairly show or suggest the claimed inventions of base claims 3 and 10 and further limit with novel and unobvious limitations of "*sending by the second RNC a request for the packet service to a serving GPRS (General Packet Radio Service) support node (SGSN) when the second RNC cannot provide the packet service; sending by the SGSN a request for radio resource assignment for providing the packet service, to the second RNC, in*

Art Unit: 2616

response to the packet service request of the second RNC; assigning by the second RNC a radio resource for providing the packet service in response to the radio resource assignment request; notifying, by the second RNC, the first RNC that the second RNC is providing the packet service, after assigning the radio resource," as recited in claims 4-9 and limitations of "sending by the second RNC a request for the packet service to a serving GPRS (General Packet Radio Service) support node (SGSN) when the second RNC cannot provide the packet service; sending by the SGSN a request for assigning a radio resource for providing the packet service to the second RNC along with a service identifier in response to the packet service request from the second RNC; assigning by the second RNC the radio resource for providing the packet service in response to the radio resource assignment request; notifying, by the second RNC, the first RNC that the second RNC is providing the packet service, after assigning the radio resource; and transmitting by the second RNC the packet service data to the UE," as recited in claims 12, 14-17; and limitations of "transmitting by the second RNC the packet service data to the UE; and transmitting by the second RNC the packet service data to the UE over a common channel if a number of UEs requesting the packet service in the second cell is larger than or equal to a predetermined number, and transmitting the packet service data to the UE over a dedicated channel if the number of UEs requesting the packet service in the second cell is smaller than the predetermined number," as recited in claim 13, structurally and functionally interconnected with other limitations in a manner as recited.

Response to Arguments

6. The newly submitted certified English translation of the priority paper has overcome all outstanding rejections. Applicant's arguments with respect to claims 1-3, 10-11 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Riihinen et al (USP 6,944,462).


3GPP TS 22.146 V5.0.0, Multimedia Broadcast/Multicast Service; Stage 1 (Release 5), pages 1-12, 2001.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is 571-272-3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



FRANK DUONG
PRIMARY EXAMINER

October 3, 2007